

We claim:

1. Apparatus for use by an access point in a wireless networking communications environment comprising:

Logic for scanning a plurality of radio frequency channels during a scan interval;
Logic for receiving messages from other access points on the plurality of radio frequency channels during the scan interval;

Logic for maintaining a channel map having an entry for each of the plurality of radio frequency channels, and if one or more messages was received on a channel, the corresponding entry further including an AP-ID for at least one of the access points that sent a message on the channel;

Logic for selecting a channel from the channel map;

Logic for transmitting messages on the selected channel during a claim interval;

Logic for receiving messages from other access points on the selected channel during the claim interval;

Logic for ascertaining whether the apparatus should commence communications with other wireless devices on the selected channel based upon characteristics of the messages received on the channel.

2. The apparatus of claim 2 wherein the logic for maintaining a channel map further stores a power level for each AP-ID for each entry in the channel map, and wherein the logic for selecting a channel from the channel map selects a channel having either no AP-ID or an AP-ID that has the lowest stored power level.

3. The apparatus of claim 3 wherein the logic for ascertaining whether the apparatus should commence communications with other wireless devices on the selected channel based upon characteristics of the messages received on the selected channel comprises:

logic for evaluating the power level of messages received on the selected channel, and if the power level of messages received on the selected channel is below a threshold, the logic for ascertaining indicates that the apparatus should commence communications with other wireless devices on the selected channel.